NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE SPECIFICATIONS

RESTORATION AND MANAGEMENT OF DECLINING HABITATS
(acre)
CODE 643

GENERAL SPECIFICATIONS APPLICABLE TO ALL HABITATS

Restoration Of Existing Degraded Sites

For sites that are not cultivated and still have some of the characteristic species of the natural habitat type, it is often best to attempt restoration through management techniques such as prescribed burning, woody cover control, and interseeding with desired species.

Appropriate management practices may include:

- Remove exotic or aggressive trees and shrubs as necessary.
- If species diversity does not increase to the desired level after several years, interseed missing species into the existing stand.

Species Selection and Sources

Propagules should originate from plants growing within a 100 to 300 mile radius of the site where possible.

No improved varieties of grass or forbs will be used in establishing this practice. Only native species will be used.

SPECIFICATIONS FOR HABITAT TYPES

PRAIRIE AND SAVANNA/WOODLAND

Native warm-season grasses with an interspersion of native forbs dominate prairies. Trees and shrubs comprise less than 10% canopy cover. Within a given prairie region, communities vary by substrate and moisture relations of the site. Savannas and woodlands have herbaceous ground cover like prairies but have from 10 to 60% canopy cover of trees. The term savanna is often used to describe the areas with tree cover near the low end of this range.

Region and Soil Association by Type

1. Lowland Terrace Prairie
   - Eastern Arkansas on alluvial terraces, primarily in these counties: Arkansas, Prairie, Lonoke, Monroe, St. Francis, Ashley.
   - Crowley-Stuttgart Association
2. Blackland Prairie
   - Southwestern Arkansas, primarily in these counties: Hempstead, Howard, Little River, Pike, Clark.
   - Oktibbeha-Sumter Association
3. Tallgrass Prairie
   - Ozarks, Arkansas Valley, primarily in these counties: Benton, Washington, Sebastian, Franklin, Carroll, Boone, Pope, Faulkner
   - Primarily Captina-Nixa-Tonti, Falkner-Wrightsville, Leadville-Taft Associations
4. Pine Savanna
   - Throughout western Arkansas, but primarily in Ouachita Mountains, Boston Mountains, and Arkansas Valley
   - Many associations typically on thin, acid soils over sandstone, novaculite, or chert.
5. Oak Savanna
   - Throughout Arkansas on thin, droughty soils.
6. Saline Woodland
   - In Coastal Plain, Delta, and Arkansas Valley on soils high in sodium and/or

magnesium salts.

7. Sandhill Woodland
   - In Coastal Plain on deep, excessively well-drained sands, primarily in Ouachita, Nevada, Miller, and Union Counties
   - Typically Darco-Briley-Smithdale Association

Establishment of Prairies

Use the following seeding mixture when establishing prairies:

Grasses

At least three species should be used with a combined density of 4 pounds PLS (Pure Live Seed). Choose from the species below:

- Big Bluestem (Andropogon gerardii)
- Switchgrass (Panicum virgatum)
- Indian Grass (Sorghastrum nutans)
- Little Bluestem (Schazichrium scoparum)
- Eastern Gammagrass (Tripsacum dactyloides)

Switchgrass should not consist of over one pound per acre and should not be planted on dry sites in blackland prairies.

Forbs

At least a half-pound per acre of at least four species will be planted from the list below:

- Pale-purple coneflower (Echinacea pallida)
- Compassplant (Silphium lacinatum)
- Ashy sunflower (Helianthus mollis)
- Black-eyed Susan (Rudbeckia hirta)
- Prairie phlox (Phlox pilosa)
- Blazing stars (Liatris species)
- Blue sage (Salvia azurea)
- American feverfew (Parthenium integrifolium)
- Cream wild indigo (Baptisia leucophaea)
- Lance-leaf coreopsis (Coreopsis tinctoria)
- Goat's rue (Tephrosia virginiana)
- Purple prairie clover (Echinacea purpurpea)
- Rattlesnake master (Eryngium yuccifolium)

Only spring and dormant seeding periods will be used. In prairie/woodland restoration, consider seeding forbs first during the dormant season and follow with grass seeding one year after the forb seeding using the no-till method. This allows the forbs to become established without competition from aggressive tall grass species.

Management of Prairies

Reduce cover of trees to approximate range for desired community.

Use site-adapted seed as necessary in areas opened up as woody cover is controlled. Burn one-third to one-half of the area at least every two years after the first growing year. After the fifth year, burn at least once every three years. Timing of burns should vary from year to year between March 15th and November 1st. Later spring and earlier fall burns are desirable. Haying may be done no more than once every two years after the fifth year.

Establishment of Savannas and Woodlands

Establishment of Saline Woodlands and Sandhill Woodlands should only be attempted for experimental purposes using locally-produced propagules and with involvement of the Arkansas Natural Heritage Commission.

Trees

Use at least three species of the following:

- Shortleaf Pine (Pinus echinata) – for pine woodland/savanna
- Post oak (Quercus stellata)
- White oak (Q. alba)
- Southern red oak (Q. falcata)
- Black hickory (Carya texana)
- White ash (Fraxinus americana) - for blackland woodland/savanna
- Pecan (Carya illinoensis) – for blackland savanna

- Chinkapin oak (Q. muhlenbergii) - for calcareous sites

Plant tree seedlings on irregular spacings from 20 feet to 100 feet.

Grasses and Forbs

Same specifications as for prairie establishment.

For more details on establishing and managing the prairies and savanna/woodland types described here, refer to Guidelines for Reconstruction, Restoration, and Management of Prairie and Savanna Natural Communities of the Glaciated Plains of Missouri, Missouri Department of Conservation, 1999. Contact the NRCS state biologist for a copy of this publication.

WETLANDS

Region and Soil Association by Type

1. Groundwater Seepage Wetland
   - These occur statewide except in the Delta. They have a variety of physical locations and plant community types but share the common feature that they are areas where water seeps from the ground in diffuse flow (not concentrated like a spring) and the flow is essentially perennial.
2. Sand Pond
   - Occurs in the Delta west of Crowley's Ridge, primarily in Clay, Randolph, Jackson, and Woodruff Counties
   - Primarily in Dundee-Bosket-Dubbs Association in perched, isolated wetlands within ancient sand dunes.

Establishment of Wetlands

Groundwater seepage wetlands should only be planted for experimental purposes with the assistance of the Arkansas Natural Heritage Commission.

Trees

Plant seedlings of at least 4 species at 12 foot spacings from this list:

- Overcup oak (Quercus lyrata)
- Pin oak (Q. palustris)
- Water hickory (Carya aquatica)
- Nuttall Oak (Q. texana)
- Willow Oak (Q. phellos)
- Bitternut Hickory (C. cordiformis)
- Waterlocust (Gleditsia aquatica)
- Honeylocust (G. triacanthos)
- Persimmon (Diospyros virginiana)
- Green ash (Fraxinus pennsylvanica)

Shrubs/Midstory Trees

Plant seedlings of at least 4 species at 12 foot spacings (at center of each four trees):

- Ironwood (Carpinus caroliniana)
- Swamp dogwood (Cornus oblique)
- Deciduous holly (Ilex decidua)
- Burning bush (Euonymus atropurpureus)
- Virginia willow (Itea virginica)
- Spicebush (Lindera benzoin)
- Drummond red maple (Acer rubrum var. drummondii)
- Pumpkin ash (Fraxinus profunda)
- Storax (Styrax americana)

REFERENCE

Guidelines for Reconstruction, Restoration, and Management of Prairie and Savanna Natural Communities of the Glaciated Plains of Missouri, Missouri Department of Conservation, 1999.